

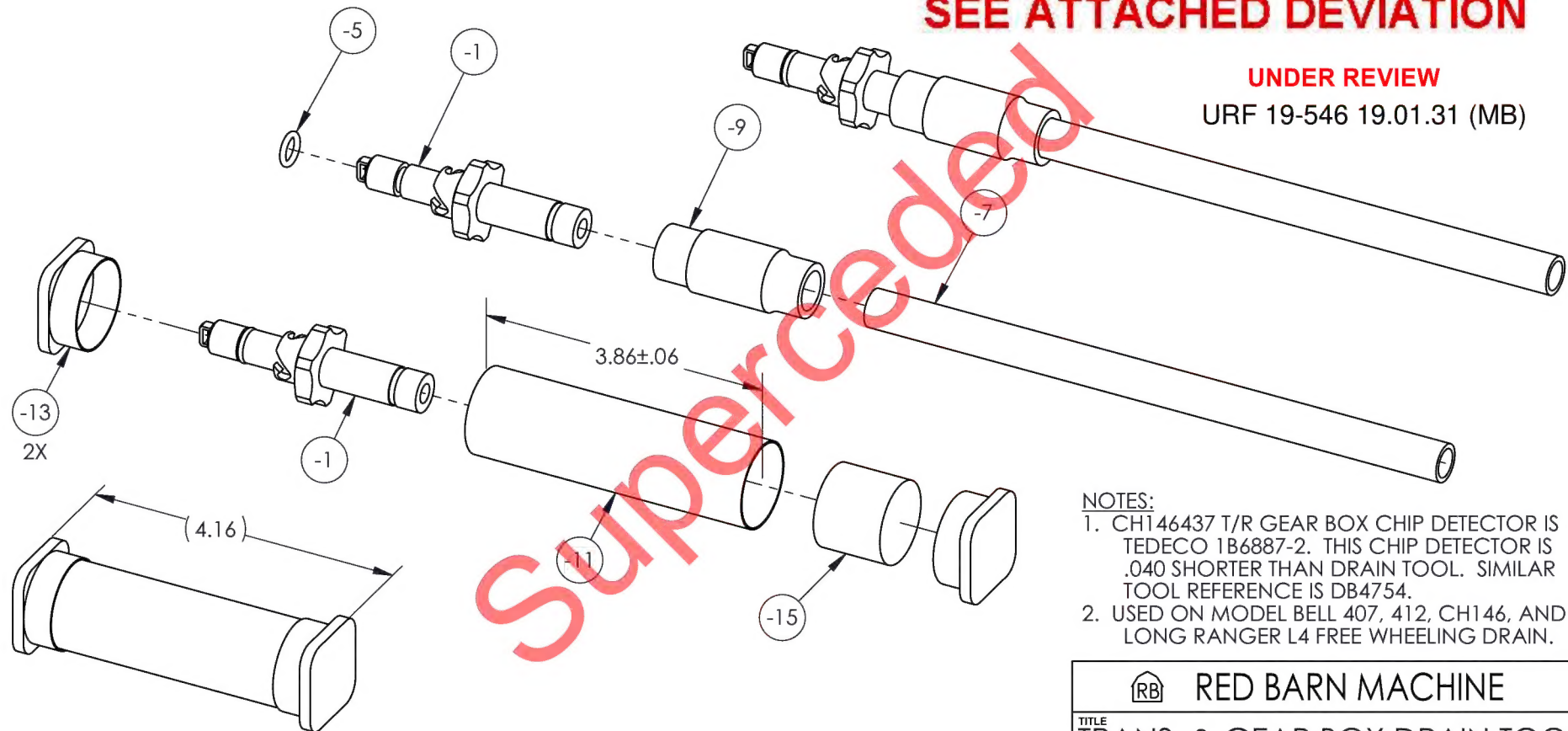
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REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	CHANGED HOSE LENGTH FROM 24 in. TO 6 ft.	4/15/08	WP	RW
2	DELETED -3 COLLAR, & ADDED -9 CLAMP. REFORMATED DIMENSIONS, ADDED NEW DRAWING FORMAT AND ASSY VIEW.	5/20/08	WP	RW
2A	ADDED NOTES & CH146 TO MODELS USED ON. ALSO ADDED ALTERNATIVE O-RING. ADDED -11 SHRINK WRAP & MARK TOOL NO.	8/10/09	WP	DW
2B	ADDED LONG RANGER INFO IN MODEL USED ON	12/3/09	WP	DW
2C	CH'D TOOL NUMBER FROM H4713 TO RB H4713	10/7/10	RJC	RW
3	MODIFIED -1 TO USE WITH COUPLING, ADDED COUPLING & SPONGES. REMOVED HOSE CLAMP & SHRINK WRAP. ADDED -13, -15, -17, EXPLODED VIEWS, UPDATED BOM. INCREASED STEM LENGTH FROM .80 TO 1.35, REMOVED BARB ADDED GROOVE.	7/24/2012	JAG	SE
4	-1 CH'D ANGLE OF LOCK GROOVES SEAT WAS 60° IS 90°. CH'D DIM'S WAS .125 IS .125 +.005 -.000 $\nabla$ .090. WAS $\varnothing$ .250 $\nabla$ 3.07 IS $\varnothing$ .25 $\nabla$ 3.07 MAX. DELETED 6X .11, (.244), (.096). ADDED NOTES WAS .50 IS .50 NO ENGRAVING. CH'D DIM WAS 6X R.38 IS 6X R.38 EQUALLY SPACED ON $\varnothing$ 1.60 B.C.. CH'D NOTE WAS ENGRAVE T/N IS ENGRAVE T/N. S/N. "MADE IN USA". -11 LENGTH FROM 3.97 TO 3.86. -15 CH'D MATERIAL WAS MCMaster-CARR #7271T32 IS NEW PIG CORP. #PAD210.	2/12/14	DPD	GE

**SEE ATTACHED DEVIATION**

**UNDER REVIEW**

URF 19-546 19.01.31 (MB)



**NOTES:**

1. CH146437 T/R GEAR BOX CHIP DETECTOR IS TEDECO 1B6887-2. THIS CHIP DETECTOR IS .040 SHORTER THAN DRAIN TOOL. SIMILAR TOOL REFERENCE IS DB4754.
2. USED ON MODEL BELL 407, 412, CH146, AND LONG RANGER L4 FREE WHEELING DRAIN.



**RED BARN MACHINE**

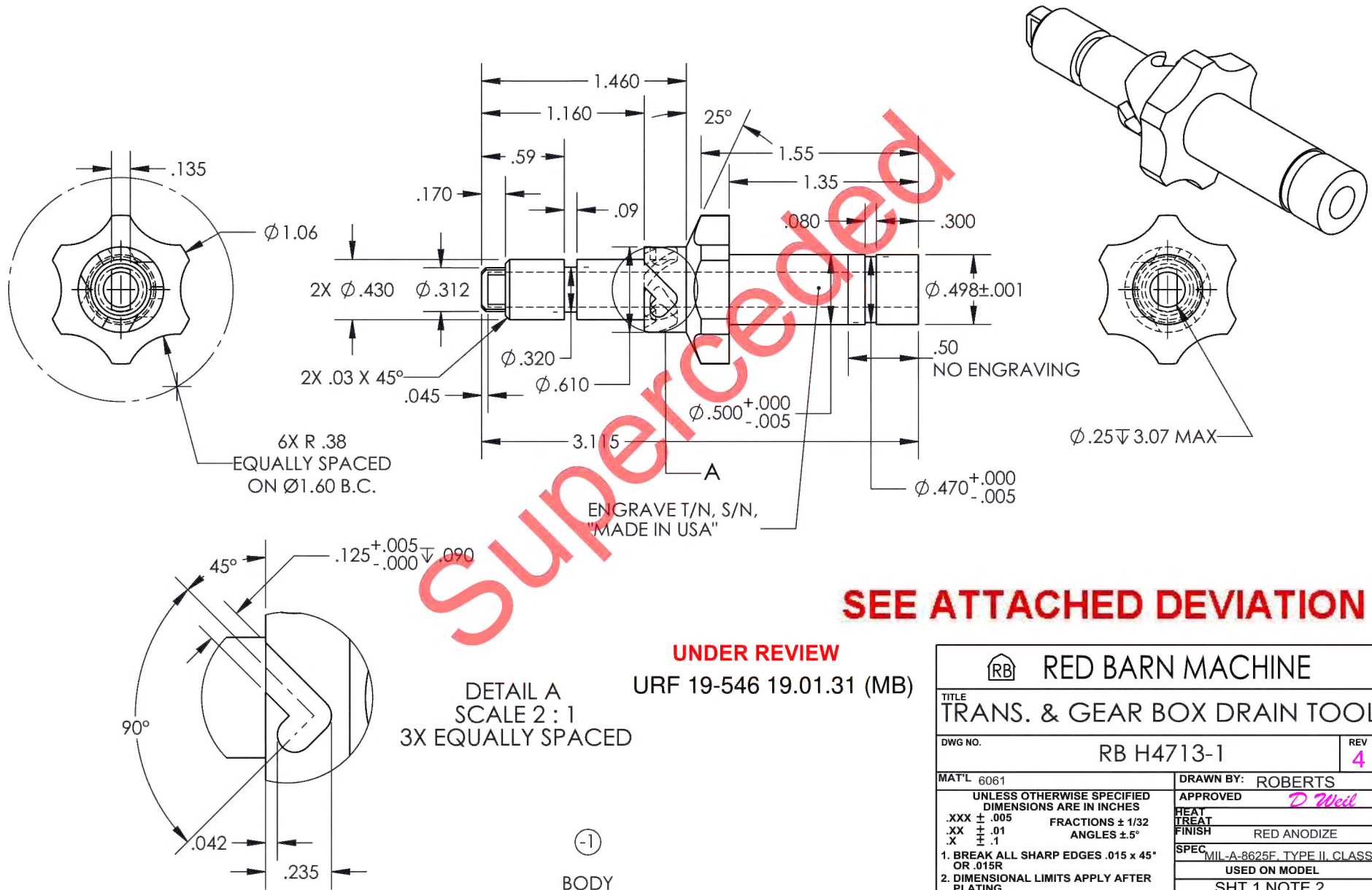
**TITLE**  
**TRANS. & GEAR BOX DRAIN TOOL**

DWG NO.		RB H4713		REV	4
MAT'L		DRAWN BY: ROBERTS			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± 5° .X ± .1		APPROVED <i>D Weil</i>			
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R		HEAT TREAT FINISH			
2. DIMENSIONAL LIMITS APPLY AFTER PLATING		SPEC			
		USED ON MODEL			
		NOTE 2			
SCALE 1:2		DATE 8/29/2000		SHEET 1 OF 2	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	BODY	6061	$\varnothing$ 1-1/8 X 3-1/4	2
		B/O	-5	1	O-RING	VITON	2-011N70 OR MCMaster-CARR #9263K642	1
		B/O	-7	1	HOSE	VINYL	$\varnothing$ 1/2 O.D. x $\varnothing$ 3/8 I.D. x 6ft KURI-TECH #K010-0608	1
		B/O	-9	1	COUPLING	NICKEL-PLATED BRASS	$\varnothing$ 1/2 MCMaster-CARR #51495K116	1
		B/O	-11	1	TUBE	POLYETHYLENE	$\varnothing$ 1.09 MCMaster-CARR #2044T47	1
		B/O	-13	2	CAP	VINYL	$\varnothing$ 1.09 MCMaster-CARR #2044T67	1
		B/O	-15	1	FOAM	POLYESTER/POLYURETHANE	$\varnothing$ 1 X 1 NEW PIG CORP. #PAD210	1

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RED BARN MACHINE	
TITLE TRANS. & GEAR BOX DRAIN TOOL	
DWG NO. RB H4713-1	REV 4
MAT'L 6061 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX $\pm$ .005 FRACTIONS $\pm$ 1/32 .XX $\pm$ .01 ANGLES $\pm$ 5° .X $\pm$ .1	DRAWN BY: ROBERTS APPROVED <i>D Weil</i> HEAT TREAT FINISH RED ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL SHT 1 NOTE 2
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SCALE 1:1 DATE 8/29/2000 SHEET 2 OF 2

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

Job: _____  Part No. <u>RB H4713 Rev. 4</u>	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	<b>DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Water Jet <input type="checkbox"/>            Supplier Quality <input type="checkbox"/> </div> </div>			
Date : _____	Sequence #: _____	QTY Affected : _____		<b>MRB (QSI042)</b>  Oct 30, 2018	
<b>Description Work Order Deviation</b>		<b>Disposition</b>		<b>Completed By</b>	
Kuri-Tech Hose (K010-0608) easily pulls out of Coupling (McMaster Carr 51495K116)		Install a 1.0" long, 0.38" OD, 0.25" ID piece of Stainless Steel into one end of the Kuri-Tech Hose until flush.  Attach the modified end of the Kuri-Tech Hose to the Coupling before placing tool into packaging (if applicable).  This deviation is acceptable.  The fit, form and function of the part will be as originally intended.		Lead hand / Supervisor	
				QC / QA Coordinator	
<b>Root Cause</b>		<b>FAULT CATEGORY</b>			
<div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input checked="" type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced  <input type="checkbox"/> Bending  <input type="checkbox"/> Crushing  <input type="checkbox"/> Cracks  <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist  <input type="checkbox"/> Marks/Chatter  <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination  <input type="checkbox"/> Misaligned/off center  <input type="checkbox"/> BOM/Route  <input type="checkbox"/> Broken/Damage/Defect  <input type="checkbox"/> Incomplete/Unclear Instructions  <input type="checkbox"/> Drill Holes  <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Folio/Program  <input type="checkbox"/> Grain Direction  <input type="checkbox"/> Weld  <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Out of Sequence  <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong  <input type="checkbox"/> Outside Tolerance  <input type="checkbox"/> Drawing  <input type="checkbox"/> Finish  <input type="checkbox"/> Part Lost/Missing  <input type="checkbox"/> Misread         </div> </div>			
Other/Details:					